U.S. Express Mail No. ED255563275US

Attorney Docket No.: AM-2044.C2

IN THE CLAIMS:

The claims are not being amended at this time.

1 - 30. (Cancelled)

31. (Previously Presented) A method of preventing diffusion from a copper conductive layer

through an underlying tantalum-comprising barrier layer, comprising:

(a) depositing said tantalum-comprising barrier layer in a manner such that said

tantalum-comprising barrier layer is variable in thickness and continuous, wherein at least a portion

of said tantalum-comprising barrier layer has a thickness in the range of about 5 Å, but not less than

5 Å; and

(b) depositing said copper layer over said tantalum-comprising layer.

32. (Previously Presented) A method in accordance with Claim 31, wherein said tantalum-

comprising layer is tantalum.

33. (Previously Presented) A method in accordance with Claim 31, wherein said tantalum-

comprising barrier layer is applied using physical vapor deposition.

34. (Previously Presented) A method in accordance with Claim 33, wherein said physical vapor

deposition comprises a sputtering technique.

4

U.S. Express Mail No. ED255563275US Attorney Docket No.: AM-2044.C2

Respectfully submitted,

Shirley L. Church

Registration No. 31,858 Attorney for Applicants

(650) 473-9700

Correspondence Address: Patent Counsel Applied Materials, Inc. P.O. Box 450-A Santa Clara, CA 95052